

METHOD AND APPARATUS FOR PROVIDING ACCESS CONTROL FOR A
DECENTRALIZED OR EMERGENT MODEL ON A COMPUTER NETWORK

ABSTRACT OF THE DISCLOSURE

5 Access control for a model on a computer network comprises generating data
objects and/or function objects, publishing references to the data objects and/or the
function objects and subscribing to the data objects and/or the functions by creating
relationships between the data objects and/or the function objects through referencing
data objects within the function objects, thereby linking the data objects and/or the
10 function objects, wherein networks of linked data objects and/or function objects
emerge. The emergent linked data objects and/or function objects are make available
for further linking with other data objects and/or function objects and messages are sent
to referencing data objects and/or function objects when referenced data objects and/or
referenced function objects change. The functions are solved when the messages are
15 received, thereby causing at least one of the referenced data to be changed. The data
objects and/or the function objects are stored in a distributed manner across multiple
computing devices on a computer network. The emergent linked data objects and/or
function objects are independently published to, and subscribed to, in a manner free of a
globally predefined data object and/or function object definition, thereby generating the
20 emergent model. Access control is provided by identifying a user of the emergent
model and assigning appropriate read, write, execute and administrative permissions to
the user on a per data objects and/or function objects basis, the permissions being used
to limit access to a specific subset of the data objects and/or function objects.

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